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LOGINID:ssptajsl1623

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TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	JAN 02	STN pricing information for 2008 now available
NEWS	3	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS	4	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS	5	JAN 28	MARPAT searching enhanced
NEWS	6	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS	7	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS	8	JAN 28	MEDLINE and LMEDLINE reloaded with enhancements
NEWS	9	FEB 08	STN Express, Version 8.3, now available
NEWS	10	FEB 20	PCI now available as a replacement to DPCI
NEWS	11	FEB 25	IFIREF reloaded with enhancements
NEWS	12	FEB 25	IMSPRODUCT reloaded with enhancements
NEWS	13	FEB 29	WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification
NEWS	14	MAR 31	IFICDB, IFIPAT, and IFIUDB enhanced with new custom IPC display formats
NEWS	15	MAR 31	CAS REGISTRY enhanced with additional experimental spectra
NEWS	16	MAR 31	CA/CAPLUS and CASREACT patent number format for U.S. applications updated
NEWS	17	MAR 31	LPCI now available as a replacement to LDPCI
NEWS	18	MAR 31	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS	19	APR 04	STN AnaVist, Version 1, to be discontinued
NEWS	20	APR 15	WPIDS, WPINDEX, and WPIX enhanced with new predefined hit display formats
NEWS EXPRESS	FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3, AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008		
NEWS HOURS	STN Operating Hours Plus Help Desk Availability		
NEWS LOGIN	Welcome Banner and News Items		
NEWS IPC8	For general information regarding STN implementation of IPC 8		

Enter NEWS followed by the item number or name to see news on that specific topic.

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 08:28:58 ON 15 APR 2008

=> b reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 08:29:24 ON 15 APR 2008

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STRUCTURE FILE UPDATES: 14 APR 2008 HIGHEST RN 1014671-54-5

DICTIONARY FILE UPDATES: 14 APR 2008 HIGHEST RN 1014671-54-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

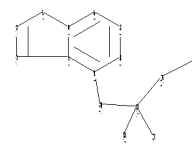
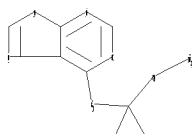
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Documents and Settings\jlau1\My Documents\10550864 - bioreduction prodrug\generic species.str



chain nodes :  
 10 11 12 13 14 16  
 ring nodes :  
 1 2 3 4 5 6 7 8 9  
 chain bonds :  
 9-10 10-11 11-12 11-13 11-16 14-16  
 ring bonds :  
 1-2 1-5 2-3 3-4 4-5 4-6 5-9 6-7 7-8 8-9  
 exact/norm bonds :  
 1-2 1-5 2-3 3-4 9-10 10-11 11-16 14-16  
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 11-12 11-13  
 normalized bonds :  
 4-5 4-6 5-9 6-7 7-8 8-9

G1:O,S,N

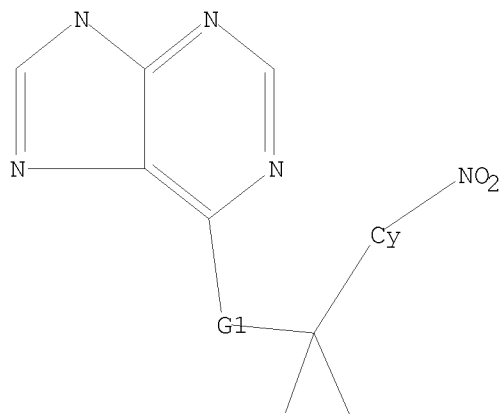
Match level :  
 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS  
 11:CLASS 12:CLASS 13:CLASS 14:CLASS 16:Atom  
 Generic attributes :  
 16:  
 Saturation : Unsaturated  
 Type of Ring System : Monocyclic

L1            STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1            STR



G1 O,S,N

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss sam

SAMPLE SEARCH INITIATED 08:29:45 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED -            69 TO ITERATE

100.0% PROCESSED            69 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:    ONLINE    \*\*COMPLETE\*\*

                         BATCH    \*\*COMPLETE\*\*

PROJECTED ITERATIONS:            882 TO            1878

PROJECTED ANSWERS:                0 TO            0

L2            0 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 08:29:51 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED -            1478 TO ITERATE

100.0% PROCESSED            1478 ITERATIONS

3 ANSWERS

SEARCH TIME: 00.00.01

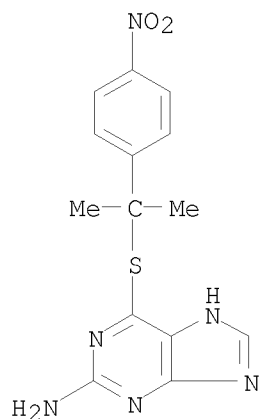
L3            3 SEA SSS FUL L1

=> d l3 1-3

L3    ANSWER 1 OF 3    REGISTRY    COPYRIGHT 2008 ACS on STN

RN    948856-26-6    REGISTRY

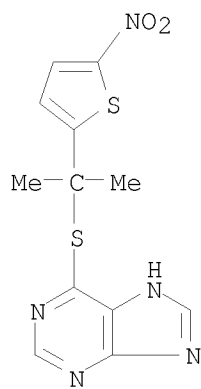
ED Entered STN: 30 Sep 2007  
 CN 9H-Purin-2-amine, 6-[[1-methyl-1-(4-nitrophenyl)ethyl]thio]- (CA INDEX NAME)  
 MF C14 H14 N6 O2 S  
 SR CA  
 LC STN Files: CA, CAPLUS, CASREACT, TOXCENTER



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

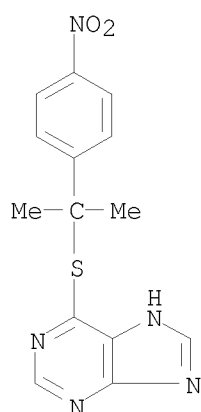
L3 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2008 ACS on STN  
 RN 770746-94-6 REGISTRY  
 ED Entered STN: 28 Oct 2004  
 CN 1H-Purine, 6-[[1-methyl-1-(5-nitro-2-thienyl)ethyl]thio]- (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN 6-[2-(5-Nitrothien-2-yl)propan-2-ylsulfanyl]-9H-purine  
 MF C12 H11 N5 O2 S2  
 SR CA  
 LC STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2008 ACS on STN  
RN 770746-91-3 REGISTRY  
ED Entered STN: 28 Oct 2004  
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OTHER CA INDEX NAMES:  
CN 1H-Purine, 6-[[1-methyl-1-(4-nitrophenyl)ethyl]thio]- (9CI)  
OTHER NAMES:  
CN 6-[2-(4-Nitrophenyl)propan-2-ylsulfanyl]-9H-purine  
MF C14 H13 N5 O2 S  
SR CA  
LC STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> b caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	184.82	185.03

FILE 'CAPLUS' ENTERED AT 08:30:22 ON 15 APR 2008  
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FILE COVERS 1907 - 15 Apr 2008 VOL 148 ISS 16  
FILE LAST UPDATED: 14 Apr 2008 (20080414/ED)

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<http://www.cas.org/infopolicy.html>

=> s 13

L4 2 L3

=> d 14 scan

L4 2 ANSWERS CAPLUS COPYRIGHT 2008 ACS on STN

IC ICM C07D333-36

ICS C07D417-04; C07D233-54; A61K031-445

CC 27-8 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 1, 28, 33, 63

TI Preparation of bioreductively activated prodrugs of antiproliferative agents

ST thiophene propoxy prodrug prepn bioreductive activation antiproliferative agent

IT Antibiotics

(anthracycline; release of cytostatic agents under hypoxic conditions from bioreductively activated prodrugs)

IT Cytotoxic agents

(antimetabolites, cytostatic agent; release of cytostatic agents under hypoxic conditions from bioreductively activated prodrugs)

IT Eye, disease

(diabetic retinopathy; preparation of bioreductively activated prodrugs of antiproliferative agents)

IT Macrolides

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(epothilones; release of cytostatic agents under hypoxic conditions from bioreductively activated prodrugs)

IT Mitosis

(inhibitor; release of cytostatic agents under hypoxic conditions from bioreductively activated prodrugs)

IT Eye, disease

(macula, senile degeneration, treatment of wet; preparation of bioreductively activated prodrugs of antiproliferative agents)

IT Antirheumatic agents

Antitumor agents

Cytotoxic agents

Human

Hypoxia

Leukemia

Neoplasm

Psoriasis

Rheumatoid arthritis

(preparation of bioreductively activated prodrugs of antiproliferative agents)

IT Drug delivery systems

(prodrugs; preparation of bioreductively activated prodrugs of antiproliferative agents)

IT Disease, animal

(proliferative; preparation of bioreductively activated prodrugs of antiproliferative agents)

IT Neoplasms  
(solid; preparation of bioreductively activated prodrugs of antiproliferative agents)

IT 62989-33-7, (6R)-5,6,7,8-Tetrahydrobiopterin  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(antagonist of; release of cytostatic agents under hypoxic conditions from bioreductively activated prodrugs)

IT 770746-88-8P, 1-[4-Methoxy-3-[[2-(5-nitrothiophen-2-yl)propan-2-yl]oxy]phenyl]-2-(3,4,5-trimethoxyphenyl)-(Z)-ethene 770746-89-9P, 1-[4-Methoxy-3-[[2-(4-nitrophenyl)propan-2-yl]oxy]phenyl]-2-(3,4,5-trimethoxyphenyl)-(Z)-ethene 770746-90-2P 770746-91-3P, 6-[2-(4-Nitrophenyl)propan-2-ylsulfanyl]-9H-purine 770746-92-4P, 1-[4-Methoxy-3-[[[1-methyl-4-(5-nitrothien-2-yl)piperidin-4-yl]oxy]carbonyl]oxy]phenyl]-2-(3,4,5-trimethoxyphenyl)-(Z)-ethene 770746-93-5P, 1-[4-Methoxy-3-[[2-(1-methyl-2-nitroimidazol-5-yl)propan-2-yl]oxy]phenyl]-2-(3,4,5-trimethoxyphenyl)-(Z)-ethene 770746-94-6P, 6-[2-(5-Nitrothien-2-yl)propan-2-ylsulfanyl]-9H-purine 770746-95-7P 770746-96-8P, 1-[3-[1-Ethoxycarbonyl-1-(5-nitrothien-2-yl)ethoxy]-4-methoxyphenyl]-2-(3,4,5-trimethoxyphenyl)-(Z)-ethene 770746-97-9P, N-[2-[3-[1-Methyl-1-(5-nitrothiophen-2-yl)ethoxy]phenyl]ethyl]acetamide  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(bioreductive prodrug; preparation of bioreductively activated prodrugs of antiproliferative agents)

IT 80449-01-0, Topoisomerase  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(inhibitor; release of cytostatic agents under hypoxic conditions from bioreductively activated prodrugs)

IT 372092-80-3, Protein kinase  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(inhibitors; release of cytostatic agents under hypoxic conditions from bioreductively activated prodrugs)

IT 770746-98-0P, 4-Hydroxy-1-methyl-4-(5-nitrothien-2-yl)piperidine 770747-00-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(intermediate; preparation of bioreductively activated prodrugs of antiproliferative agents)

IT 9039-06-9, Cytochrome p450 reductase  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(preparation of bioreductively activated prodrugs of antiproliferative agents)

IT 50-44-2, 6-Mercaptopurine 117048-59-6, Combretastatin A4  
RL: PAC (Pharmacological activity); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)  
(preparation of bioreductively activated prodrugs of antiproliferative agents)

IT 147-94-4, Cytarabine  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(preparation of bioreductively activated prodrugs of antiproliferative agents)

IT 609-40-5, 2-Nitrothiophene 1445-73-4, 1-Methylpiperidin-4-one 6742-07-0 41765-97-3, N-Acetyl-3-(2-aminoethyl)phenol 60628-92-4, 5-(1-Hydroxy-1-methylethyl)-1-methyl-2-nitro-1H-imidazole 69240-39-7, 1-Methyl-1-(5-nitrothiophen-2-yl)ethanol 70951-50-7, 2-Bromo-2-(4-nitrophenyl)propane 226972-65-2, Ethyl 2-hydroxy-2-(5-nitrothien-2-yl)propanoate 770746-99-1, 2-Chloro-2-(5-nitrothien-2-



yl)propane

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of bioreductively activated prodrugs of antiproliferative agents)

IT 51-21-8, 5-Fluorouracil 57-22-7, Vincristine 59-05-2, Methotrexate 154-42-7, 6-Thioguanine 320-67-2, 5-Azacytidine 518-28-5, Podophyllotoxin 865-21-4, Vinblastine 2353-33-5, Decitabine 4291-63-8, Cladribine 20830-81-3, Daunorubicin 21679-14-1, Fludarabine 23214-92-8, Doxorubicin 26599-17-7, 4'-Thioaracytidine 29767-20-2, Teniposide 33069-62-4, Paclitaxel 33419-42-0, Etoposide 52128-35-5, Trimetrexate 56420-45-2, Epirubicin 71486-22-1, Vinorelbine 86639-52-3, SN 38 95058-81-4, Gemcitabine 109971-63-3, Combretastatin A1 114977-28-5, Docetaxel 123318-82-1, Clofarabine 123948-87-8, Topotecan 130306-02-4, Tezacitabine 145918-75-8, Troxacitabine 154361-50-9, Capecitabine 183321-74-6, Erlotinib 184475-35-2, Gefitinib 443913-73-3, ZD6474

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(release of cytostatic agents under hypoxic conditions from bioreductively activated prodrugs)

IT 9037-80-3, Reductase

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(use bioreductively activated stilbene prodrugs with a reductase, an antibody-reductase conjugate, a macromol.-reductase conjugate or DNA encoding a reductase gene for treating proliferative disorders)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L4 2 ANSWERS CAPLUS COPYRIGHT 2008 ACS on STN

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 26

TI Hypoxia-driven elimination of thiopurines from their nitrobenzyl prodrugs

ST nitrobenzyl thioguanine mercaptopurine prepn antitumor prodrug; radical half life nitrobenzyl thioguanine mercaptopurine gamma pulse radiolysis; rate release thioguanine mercaptopurine gamma pulse radiolysis; hypoxia selective release thioguanine nitrobenzyl prodrug A549 cell; antitumor prodrug nitrobenzyl thioguanine mercaptopurine selective release hypoxia; elimination driven hypoxia thiopurine nitrobenzyl prodrug; structure nitrobenzyl thioguanine mercaptopurine release antitumor agent hypoxia

IT Human

Lung, neoplasm

(preparation of S-nitrobenzyl thioguanines and an S-benzylmercaptapurine as hypoxia-selective prodrugs for antitumor agents and release of thioguanine in A549 human lung cancer cells under aerobic and hypoxic conditions)

IT Antitumor agents

Fragmentation reaction

Hypoxia

Prodrugs

(preparation of S-nitrobenzyl thioguanines and an S-benzylmercaptapurine as hypoxia-selective prodrugs for antitumor agents, release of thiols upon  $\gamma$ -pulse irradiation and of thioguanine in A549 cells under aerobic and hypoxic conditions)

IT 50-44-2, 6-Mercaptopurine 154-42-7, 6-Thioguanine

RL: FMU (Formation, unclassified); RCT (Reactant); FORM (Formation, nonpreparative); RACT (Reactant or reagent)

(preparation of S-nitrobenzyl thioguanines and an S-benzylmercaptapurine as hypoxia-selective prodrugs for antitumor agents, release of thiols upon  $\gamma$ -pulse irradiation and of thioguanine in A549 cells under aerobic

and hypoxic conditions)

IT 5069-64-7P 770746-91-3P 948856-26-6P  
 RL: PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)  
 (preparation of S-nitrobenzyl thioguanines and an S-benzylmercaptapurine as hypoxia-selective prodrugs for antitumor agents, release of thiols upon  $\gamma$ -pulse irradiation and of thioguanine in A549 cells under aerobic and hypoxic conditions)

IT 100-11-8, 4-Nitrobenzyl bromide 70951-50-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of S-nitrobenzyl thioguanines and an S-benzylmercaptapurine as hypoxia-selective prodrugs for antitumor agents, release of thiols upon  $\gamma$ -pulse irradiation and of thioguanine in A549 cells under aerobic and hypoxic conditions)

ALL ANSWERS HAVE BEEN SCANNED

=> d 14 1-2 ibib

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2007:746502 CAPLUS  
 DOCUMENT NUMBER: 147:350314  
 TITLE: Hypoxia-driven elimination of thiopurines from their nitrobenzyl prodrugs  
 AUTHOR(S): Thomson, Peter; Naylor, Matthew A.; Stratford, Michael R. L.; Lewis, Gemma; Hill, Sally; Patel, Kantilal B.; Wardman, Peter; Davis, Peter D.  
 CORPORATE SOURCE: University of Oxford, Gray Cancer Institute, Mount Vernon Hospital, Middlesex, HA6 2JR, UK  
 SOURCE: Bioorganic & Medicinal Chemistry Letters (2007), 17(15), 4320-4322  
 CODEN: BMCLE8; ISSN: 0960-894X  
 PUBLISHER: Elsevier Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 147:350314  
 REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:817879 CAPLUS  
 DOCUMENT NUMBER: 141:332039  
 TITLE: Preparation of bioreductively activated prodrugs of antiproliferative agents  
 INVENTOR(S): Davis, Peter David; Naylor, Matthew Alexander; Thomson, Peter; Everett, Steven Albert; Stratford, Michael Richard Lacey; Wardman, Peter  
 PATENT ASSIGNEE(S): Angiogene Pharmaceuticals Limited, UK; Gray Laboratory Cancer Research Trust  
 SOURCE: PCT Int. Appl., 45 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2004085421      A2      20041007      WO 2004-GB1330      20040326
WO 2004085421      A3      20050324
W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
    CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
    GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
    LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
    NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
    TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
    BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
    ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
    SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
    TD, TG
AU 2004224070      A1      20041007      AU 2004-224070      20040326
CA 2519901          A1      20041007      CA 2004-2519901      20040326
EP 1613612          A2      20060111      EP 2004-723650      20040326
R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
    IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK
CN 1791591          A      20060621      CN 2004-80013946      20040326
JP 2006523202      T      20061012      JP 2006-506035      20040326
IN 2005CN02380      A      20070803      IN 2005-CN2380      20050923
US 20070099871      A1      20070503      US 2005-550864      20051027
PRIORITY APPLN. INFO.:      GB 2003-6907      A  20030326
                                WO 2004-GB1330      W  20040326
OTHER SOURCE(S):      CASREACT 141:332039; MARPAT 141:332039

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COST IN U.S. DOLLARS
FULL ESTIMATED COST

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SINCE FILE      TOTAL
ENTRY      SESSION
3.86      188.89

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SESSION WILL BE HELD FOR 120 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 08:32:10 ON 15 APR 2008

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssptajsl1623

PASSWORD:

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* * * * * RECONNECTED TO STN INTERNATIONAL * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 09:51:49 ON 15 APR 2008
FILE 'CAPLUS' ENTERED AT 09:51:49 ON 15 APR 2008
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

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COST IN U.S. DOLLARS
FULL ESTIMATED COST

```

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SINCE FILE      TOTAL
ENTRY      SESSION
3.86      188.89

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=> b marpat
COST IN U.S. DOLLARS
FULL ESTIMATED COST

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SINCE FILE      TOTAL
ENTRY      SESSION
3.86      188.89

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FILE 'MARPAT' ENTERED AT 09:52:04 ON 15 APR 2008  
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FILE CONTENT: 1961-PRESENT VOL 148 ISS 14 (20080411/ED)

SOME MARPAT RECORDS ARE DERIVED FROM INPI DATA FOR 1961-1987

MOST RECENT CITATIONS FOR PATENTS FROM MAJOR ISSUING AGENCIES  
(COVERAGE TO THESE DATES IS NOT COMPLETE):

US	20080051413	28	FEB	2008
DE	102006039038	21	FEB	2008
EP	1889831	20	FEB	2008
JP	2008044933	28	FEB	2008
WO	2008028336	13	MAR	2008
GB	2440819	13	FEB	2008
FR	2904973	22	FEB	2008
RU	2317993	27	FEB	2008
CA	2593150	06	JAN	2008

Expanded G-group definition display now available.

Effective December 15th the iteration and answer limits in MARPAT  
have increased from 100,000 to 200,000 for both on-line and batch  
searches. For more information on MARPAT search limits, type HELP  
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=> d his

(FILE 'HOME' ENTERED AT 08:28:58 ON 15 APR 2008)

FILE 'REGISTRY' ENTERED AT 08:29:24 ON 15 APR 2008

L1	STRUCTURE	UPLOADED
L2	0 S L1	SSS SAM
L3	3 S L1	SSS FULL

FILE 'CAPLUS' ENTERED AT 08:30:22 ON 15 APR 2008

L4	2 S L3
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FILE 'MARPAT' ENTERED AT 09:52:04 ON 15 APR 2008

=> s l3 sss sam

SAMPLE SEARCH INITIATED 09:52:13 FILE 'MARPAT'

SAMPLE SCREEN SEARCH COMPLETED - 187 TO ITERATE

100.0% PROCESSED	187 ITERATIONS	0 ANSWERS
SEARCH TIME: 00.00.01		

FULL FILE PROJECTIONS:	ONLINE	**COMPLETE**
	BATCH	**COMPLETE**

PROJECTED ITERATIONS:	2923 TO	4557
PROJECTED ANSWERS:	0 TO	0

L5	0 SEA	SSS	SAM	L1
----	-------	-----	-----	----

=> s l3 sss full

FULL SEARCH INITIATED 09:52:19 FILE 'MARPAT'  
FULL SCREEN SEARCH COMPLETED - 3552 TO ITERATE

98.3% PROCESSED 3491 ITERATIONS 21 ANSWERS

98.3% PROCESSED 3491 ITERATIONS 21 ANSWERS

100.0% PROCESSED 3552 ITERATIONS ( 1 INCOMPLETE) 22 ANSWERS

SEARCH TIME: 00.00.34

L6 22 SEA SSS FUL L1

=> s 16 and py<=2003

'2003' NOT A VALID FIELD CODE

0 PY<=2003

L7 0 L6 AND PY<=2003

=> d 16 scan

L6 22 ANSWERS MARPAT COPYRIGHT 2008 ACS on STN

NCL 424725000

CC 1-11 (Pharmacology)

Section cross-reference(s): 28, 63

TI Therapeutic Gastrodia extracts

ST Huntington's disease Gastrodia ext bishydroxybenzylsulfide

IT Nervous system, disease

(Huntington's chorea; therapeutic Gastrodia exts.)

IT Drug delivery systems

Gastrodia

Gastrodia elata

Natural products, pharmaceutical

(therapeutic Gastrodia exts.)

IT 38204-93-2P

RL: PAC (Pharmacological activity); PUR (Purification or recovery); SPN

(Synthetic preparation); THU (Therapeutic use); BIOL (Biological study);

PREP (Preparation); USES (Uses)

(therapeutic Gastrodia exts.)

IT 110505-75-4P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic

preparation); THU (Therapeutic use); BIOL (Biological study); PREP

(Preparation); RACT (Reactant or reagent); USES (Uses)

(therapeutic Gastrodia exts.)

IT 58-61-7, Adenosine, reactions 100-07-2, 4-Methoxybenzoyl chloride

6258-60-2, (4-Methoxyphenyl)methanethiol

RL: RCT (Reactant); RACT (Reactant or reagent)

(therapeutic Gastrodia exts.)

IT 23666-24-2P 54373-32-9P 56883-05-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

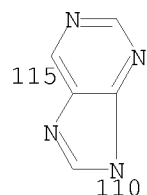
(therapeutic Gastrodia exts.)

MSTR 1A

G10—G1—G4—G6—G5—G2—G3—G10  
3 5 6 7 8

G1 = phenylene (opt. substd.)

G2 = 115-5 110-7



G4 = carbon chain <containing 1 or more C>  
(opt. substd.)

G5 = bond

G6 = O

G10 = NO2

Patent location: disclosure

Note: and pharmaceutically acceptable salts and solvates

Note: substitution is restricted

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L6 22 ANSWERS MARPAT COPYRIGHT 2008 ACS on STN

CC 26-9 (Biomolecules and Their Synthetic Analogs)

Section cross-reference(s): 1, 28, 63

TI Preparation of sulfonamido purine aniline derivatives as Janus kinase inhibitors

ST sulfonamido purine aniline prepn JAK2 kinase inhibitor; proliferative disease treatment sulfonamido purine aniline prepn

IT Antitumor agents

Cytotoxic agents

Human

Neoplasm

(preparation of sulfonamido purine aniline derivs. as JAK2 kinase inhibitors for the treatment of proliferative disease)

IT Sulfonamides

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of sulfonamido purine aniline derivs. as JAK2 kinase inhibitors for the treatment of proliferative disease)

IT Disease, animal

(proliferative; preparation of sulfonamido purine aniline derivs. as JAK2 kinase inhibitors for the treatment of proliferative disease)

IT Pharmaceutical capsules

(soft capsules; preparation of sulfonamido purine aniline derivs. as JAK2 kinase inhibitors for the treatment of proliferative disease)

IT 152478-57-4, JAK2 kinase

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(preparation of sulfonamido purine aniline derivs. as JAK2 kinase inhibitors for the treatment of proliferative disease)

IT	934595-55-8P	942475-75-4P	942475-76-5P	942475-77-6P	942475-78-7P
	942475-79-8P	942475-80-1P	942475-81-2P	942475-82-3P	942475-83-4P
	942475-84-5P	942475-85-6P	942475-86-7P	942475-87-8P	942475-88-9P
	942475-89-0P	942475-90-3P	942475-91-4P	942475-92-5P	942475-93-6P
	942475-94-7P	942475-95-8P	942475-96-9P	942475-97-0P	942475-98-1P
	942475-99-2P	942476-00-8P	942476-01-9P	942476-02-0P	942476-03-1P
	942476-04-2P	942476-05-3P	942476-06-4P	942476-07-5P	942476-08-6P
	942476-09-7P	942476-10-0P	942476-11-1P	942476-12-2P	942476-13-3P

942476-14-4P	942476-15-5P	942476-16-6P	942476-17-7P	942476-18-8P
942476-19-9P	942476-20-2P	942476-21-3P	942476-22-4P	942476-23-5P
942476-24-6P	942476-25-7P	942476-26-8P	942476-27-9P	942476-28-0P
942476-29-1P	942476-30-4P	942476-31-5P	942476-32-6P	942476-33-7P
942476-34-8P	942476-35-9P	942476-36-0P	942476-37-1P	942476-38-2P
942476-39-3P	942476-40-6P	942476-41-7P	942476-42-8P	942476-43-9P
942476-44-0P	942476-45-1P	942476-46-2P	942476-47-3P	942476-48-4P
942476-49-5P	942476-50-8P	942476-51-9P	942476-52-0P	942476-53-1P
942476-54-2P	942476-55-3P	942476-56-4P	942476-57-5P	942476-58-6P
942476-59-7P	942476-60-0P	942476-61-1P	942476-62-2P	942476-63-3P
942476-64-4P	942476-65-5P	942476-66-6P	942476-67-7P	

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of sulfonamido purine aniline derivs. as JAK2 kinase inhibitors for the treatment of proliferative disease)

IT 51-45-6, 2-(1H-Imidazol-4-yl)ethylamine, reactions 75-31-0, Isopropylamine, reactions 96-41-3, Cyclopentanol 99-09-2, 3-Nitroaniline 100-46-9, Benzylamine, reactions 100-49-2, Cyclohexylmethanol 100-51-6, Benzyl alcohol, reactions 108-00-9, 2-Dimethylaminoethylamine 109-01-3, N-Methylpiperazine 109-56-8, 2-Isopropylaminoethanol 109-86-4, 2-Methoxyethanol 110-91-8, Morpholine, reactions 121-05-1, 2-Diisopropylaminoethylamine 123-75-1, Pyrrolidine, reactions 124-68-5, 2-Amino-2-methyl-1-propanol 180-76-7, 1,4-Diazaspiro[5.5]undecane 280-57-9, 1,4-Diazabicyclo[2.2.2]octane 371-41-5, 4-Fluorophenol 453-20-3, 3-Hydroxytetrahydrofuran 616-30-8, 3-Amino-1,2 propanediol 693-05-0, 3-Methylaminopropionitrile 765-30-0, Cyclopropylamine 822-36-6, 4-Methylimidazole 932-30-9, 2-Aminomethylphenol 1003-03-8, Cyclopentylamine 1008-91-9, 1-(4-Pyridyl)piperazine 2026-48-4, (S)-2-Amino-3-methylbutan-1-ol 2038-03-1, 4-(2-Aminoethyl)morpholine 2516-34-9, Cyclobutylamine 2627-86-3, (S)-1-Phenylethylamine 2706-56-1, 2-(2-Aminoethyl)pyridine 2740-83-2, 3-Trifluoromethylbenzylamine 3014-80-0 3731-52-0, 3-Pyridylmethylamine 3789-59-1, (S)-1-Phenylpropylamine 3886-69-9, (R)-1-Phenylethylamine 4152-92-5 4276-09-9, (R)-2-Amino-3-methylbutan-1-ol 4403-70-7, 3-Aminomethylphenylamine 4747-21-1, Isopropylmethylamine 5071-96-5, 3-Methoxybenzylamine 5813-64-9, Neopentylamine 6530-09-2, 3-Aminoquinuclidine dihydrochloride 7409-18-9, 3-Nitrobenzylamine 10406-24-3, 3-Aminomethylbenzonitrile 19293-58-4, 4-Dimethylaminobenzylamine 19522-67-9, N-Isopropylethane-1,2-diamine 20419-68-5, 2,6-Dichloro-9-(tetrahydropyran-2-yl)-9H-purine 22526-47-2, (S)-1,2,2-Trimethylpropylamine 22990-77-8, 2-(Aminomethyl)piperidine 23356-96-9, S-2-(Hydroxymethyl)pyrrolidine 31519-52-5 31519-53-6 37045-73-1, N-(3-Aminophenyl)methanesulfonamide 40499-83-0, 3-Pyrrolidinol 53557-47-4 57678-46-3, 3-Dimethylaminobenzylamine 66228-31-7, (R)-1,2,2-Trimethylpropylamine 68327-04-8 73604-31-6, 3-Aminomethylphenol 86087-23-2, (S)-(+)-3-Hydroxytetrahydrofuran 86087-24-3, (R)-(-)-3-Hydroxytetrahydrofuran 87781-93-9 93071-75-1, 3-Trifluoromethoxybenzylamine 96783-68-5, N-(3-Aminomethylphenyl)acetamide 112245-09-7, (R)-2-Amino-3,3-dimethylbutan-1-ol 112245-13-3, (S)-2-Amino-3,3-dimethylbutan-1-ol 125593-25-1 137254-03-6, (1R,2S)-2-Aminocyclopentanol hydrochloride 138799-95-8 149917-33-9 158849-15-1 162679-02-9 167321-08-6 167321-10-0 321330-19-2, 2,1,3-Benzoxadiazole-5-methanamine 672325-37-0 749789-43-3 771573-22-9 849020-90-2, N-(3-Aminomethylphenyl)-N-methylacetamide hydrochloride 881407-20-1 886766-44-5 942476-78-0 942476-79-1 942476-80-4 942476-81-5 942579-86-4

RL: RCT (Reactant); RACT (Reactant or reagent)

IT	23384-29-4P	942476-68-8P	942476-69-9P	942476-70-2P	942476-71-3P
	942476-72-4P	942476-73-5P	942476-74-6P	942476-75-7P	942476-76-8P
	942476-77-9P				

(preparation of sulfonamido purine aniline derivs. as JAK2 kinase inhibitors for the treatment of proliferative disease)

Chemical structure of a nucleoside derivative. The structure shows a purine base (adenine) attached to a sugar moiety (G1) via an N-glycosidic bond. The sugar is linked to a sulfonamide group (G4-SO<sub>2</sub>-NH-G1) and a hydrogen atom (H). The purine base is labeled with G6 and G7.

61 G10—G9

Patent location: claim 1  
Note: additional substitution also claimed  
Note: or salts

=> d his

L1		STRUCTURE	UPLOADED
L2	0	S L1	SSS SAM
L3	3	S L1	SSS FULL

L4 2 S L3

L5	0	S	L3	SSS	SAM
L6	22	S	L3	SSS	FULL
L7	0	S	L6	AND	PY<=2003

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION



FULL ESTIMATED COST

66.34

255.23

FILE 'CAPLUS' ENTERED AT 09:54:27 ON 15 APR 2008  
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FILE COVERS 1907 - 15 Apr 2008 VOL 148 ISS 16  
FILE LAST UPDATED: 14 Apr 2008 (20080414/ED)

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<http://www.cas.org/infopolicy.html>

=> s 16

L8 22 L6

=> s 18 and py<=2003

23980312 PY<=2003

L9 8 L8 AND PY<=2003

=> d 19 1-8 ibib

L9 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:814853 CAPLUS

DOCUMENT NUMBER: 137:325431

TITLE: Preparation of aminopyrimidines and -pyridines as glycogen synthase kinase 3 inhibitors

INVENTOR(S): Nuss, John M.; Harrison, Stephen D.; Ring, David B.; Boyce, Rustum S.; Johnson, Kirk; Pfister, Keith B.; Ramurthy, Savithri; Seely, Lynn; Wagman, Allan S.; Desai, Manjo; Levine, Barry H.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 134 pp., Cont.-in-part of U.S. 6,417,185.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
US 20020156087	A1	20021024	US 2001-949035	20010906 <--
US 7045519	B2	20060516		
US 6417185	B1	20020709	US 1999-336038	19990618 <--
US 20030130289	A1	20030710	US 2002-309535	20021203 <--

US 7037918 B2 20060502  
 US 20060089369 A1 20060427 US 2005-220400 20050906  
 PRIORITY APPLN. INFO.: US 1998-89978P P 19980619  
 US 1999-336038 A2 19990618  
 US 2000-230480P P 20000906  
 US 1999-336098 A3 19990618  
 US 2001-949035 A3 20010906  
 OTHER SOURCE(S): MARPAT 137:325431  
 REFERENCE COUNT: 306 THERE ARE 306 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L9 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2002:185092 CAPLUS  
 DOCUMENT NUMBER: 136:247598  
 TITLE: Preparation of aminopyrimidines and -pyridines as  
 glycogen synthase kinase 3 inhibitors  
 INVENTOR(S): Nuss, John M.; Harrison, Stephen D.; Ring, David B.;  
 Boyce, Rustum S.; Johnson, Kirk; Pfister, Keith B.;  
 Ramurthy, Savithri; Seely, Lynn; Wagman, Allan S.;  
 Desai, Manoj; Levine, Barry H.  
 PATENT ASSIGNEE(S): Chiron Corporation, USA  
 SOURCE: PCT Int. Appl., 268 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002020495	A2	20020314	WO 2001-US42081	20010906 <--
WO 2002020495	A3	20020620		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001095026	A	20020322	AU 2001-95026	20010906 <--
EP 1317433	A2	20030611	EP 2001-975734	20010906 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004514656	T	20040520	JP 2002-525117	20010906
CN 1592743	A	20050309	CN 2001-818425	20010906
IN 2003KN00277	A	20050311	IN 2003-KN277	20030305
KR 816769	B1	20080326	KR 2003-703327	20030306
KR 2008013026	A	20080212	KR 2008-701887	20080124
PRIORITY APPLN. INFO.:			US 2000-230480P P 20000906	
			WO 2001-US42081 W 20010906	
			KR 2003-703327 A3 20030306	
OTHER SOURCE(S):	MARPAT 136:247598			

L9 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2001:763522 CAPLUS  
 DOCUMENT NUMBER: 135:283233

TITLE: Pharmaceutical use of adenosine agonists for inducing  
 bone marrow cell proliferation  
 INVENTOR(S): Fishman, Pnina; Cohn, Ilan  
 PATENT ASSIGNEE(S): Can-Fite Biopharma Ltd., Israel  
 SOURCE: U.S. Pat. Appl. Publ., 10 pp., Cont.-in-part of U.S.  
 Ser. No. 700,744.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20010031742	A1	20011018	US 2001-782259	20010214 <--
US 6790839	B2	20040914		
WO 2000040251	A1	20000713	WO 2000-IL14	20000107 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6638914	B1	20031028	US 2001-700744	20010109 <--
US 20020037871	A1	20020328	US 2001-871963	20010604 <--
PRIORITY APPLN. INFO.:			IL 1999-127947	A 19990107
			WO 2000-IL14	P 20000107
			US 2001-700744	A2 20010109
			US 2001-782259	A2 20010214
OTHER SOURCE(S):			MARPAT 135:283233	
REFERENCE COUNT:			39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT	

L9 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:734085 CAPLUS  
 DOCUMENT NUMBER: 126:19178  
 TITLE: Nucleotide inotropic agents  
 INVENTOR(S): Liang, Bruce T.  
 PATENT ASSIGNEE(S): University of Pennsylvania, USA  
 SOURCE: PCT Int. Appl., 56 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9629345	A1	19960926	WO 1996-US3911	19960322 <--
W: CA, JP, US RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5712258	A	19980127	US 1995-409350	19950323 <--
US 6255292	B1	20010703	US 1997-875050	19970923 <--
US 20030186929	A1	20031002	US 2003-396200	20030325 <--
US 7348315	B2	20080325		
PRIORITY APPLN. INFO.:			US 1995-409350	A2 19950323
			WO 1996-US3911	W 19960322

US 1997-875050 A2 19970923  
US 2000-641491 B1 20000818

OTHER SOURCE(S): MARPAT 126:19178

L9 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:315533 CAPLUS

DOCUMENT NUMBER: 122:106398

TITLE: Preparation of deoxythionucleosides as virucides

INVENTOR(S): Koszalka, George Walter; Van Draanen, Nanine Agneta;  
Freeman, George Andrew; Short, Steven Andersen

PATENT ASSIGNEE(S): Wellcome Foundation Ltd., UK

SOURCE: PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9401443	A1	19940120	WO 1993-GB1388	19930701 <--
W: AU, BB, BG, BR, CA, CZ, FI, HU, JP, KP, KR, KZ, LK, MG, MN, MW,				
NO, NZ, PL, RO, RU, SD, SK, UA, US, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,				
BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9345085	A	19940131	AU 1993-45085	19930701 <--
CN 1087089	A	19940525	CN 1993-109525	19930701 <--
ZA 9304742	A	19950103	ZA 1993-4742	19930701 <--
EP 648218	A1	19950419	EP 1993-914865	19930701 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 07508531	T	19950921	JP 1993-503083	19930701 <--
PRIORITY APPLN. INFO.:			GB 1992-14171	A 19920702
			GB 1992-23180	A 19921105
			WO 1993-GB1388	A 19930701

OTHER SOURCE(S): CASREACT 122:106398; MARPAT 122:106398

L9 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:247683 CAPLUS

DOCUMENT NUMBER: 114:247683

TITLE: Preparation of N-heteroarylpurin-6-amines as  
analgesics and anticonvulsants

INVENTOR(S): Effland, Richard Charles; Klein, Joseph Thomas; Davis,  
Larry; Olson, Gordon Edward

PATENT ASSIGNEE(S): Hoechst-Roussel Pharmaceuticals, Inc., USA

SOURCE: Eur. Pat. Appl., 25 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 402752	A1	19901219	EP 1990-110676	19900606 <--
EP 402752	B1	19950913		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 5017578	A	19910521	US 1989-363837	19890609 <--
ES 2078267	T3	19951216	ES 1990-110676	19900606 <--
IL 94665	A	19940624	IL 1990-94665	19900607 <--

CA 2018563	A1	19901209	CA 1990-2018563	19900608 <--
CA 2018563	C	20000919		
NO 9002555	A	19901210	NO 1990-2555	19900608 <--
AU 9056919	A	19901213	AU 1990-56919	19900608 <--
AU 636351	B2	19930429		
CN 1047866	A	19901219	CN 1990-104194	19900608 <--
CN 1029968	B	19951011		
HU 54156	A2	19910128	HU 1990-3768	19900608 <--
HU 207320	B	19930329		
JP 03024080	A	19910201	JP 1990-148884	19900608 <--
JP 06102663	B	19941214		
ZA 9004443	A	19910327	ZA 1990-4443	19900608 <--
KR 199524	B1	19990615	KR 1990-8444	19900609 <--
US 5155098	A	19921013	US 1991-696472	19910506 <--
KR 210179	B1	19990715	KR 1998-49161	19981117 <--
PRIORITY APPLN. INFO.:			US 1989-363837	A 19890609
			KR 1990-8444	A 19900609

OTHER SOURCE(S): CASREACT 114:247683; MARPAT 114:247683

L9 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1991:143930 CAPLUS  
 DOCUMENT NUMBER: 114:143930  
 TITLE: Preparation of 5'N, 6-disubstituted adenosines from inosines  
 INVENTOR(S): Bridges, Alexander J.  
 PATENT ASSIGNEE(S): Warner-Lambert Co., USA  
 SOURCE: U.S., 7 pp. Cont. of U.S. Ser. No. 34,125, abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 4962194	A	19901009	US 1988-260202	19881019 <--
PRIORITY APPLN. INFO.:			US 1987-34125	B1 19870402
OTHER SOURCE(S):			CASREACT 114:143930; MARPAT 114:143930	

L9 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1990:423943 CAPLUS  
 DOCUMENT NUMBER: 113:23943  
 TITLE: 6-Mercaptopurine derivatives, their preparation and their use against retrovirus infections  
 INVENTOR(S): Klosa, Josef; Kroeger, Hans Prof; Meichsner, Christoph; Winkler, Irvin; Helsberg, Matthias; Schrinner, Elmar  
 PATENT ASSIGNEE(S): Hoechst A.-G., Germany  
 SOURCE: Eur. Pat. Appl., 15 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 350742	A1	19900117	EP 1989-112061	19890701 <--
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				

DE 3823345	A1	19900125	DE 1988-3823345	19880709 <--
DK 8903383	A	19900110	DK 1989-3383	19890707 <--
AU 8937933	A	19900111	AU 1989-37933	19890707 <--
JP 02067283	A	19900307	JP 1989-174317	19890707 <--
ZA 8905176	A	19900328	ZA 1989-5176	19890707 <--
PRIORITY APPLN. INFO.:			DE 1988-3823345	A 19880709
OTHER SOURCE(S):		CASREACT 113:23943; MARPAT 113:23943		

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FILE 'REGISTRY' ENTERED AT 08:29:24 ON 15 APR 2008

L1               STRUCTURE UPLOADED  
L2               0 S L1 SSS SAM  
L3               3 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 08:30:22 ON 15 APR 2008

L4               2 S L3

FILE 'MARPAT' ENTERED AT 09:52:04 ON 15 APR 2008

L5               0 S L3 SSS SAM  
L6               22 S L3 SSS FULL  
L7               0 S L6 AND PY<=2003

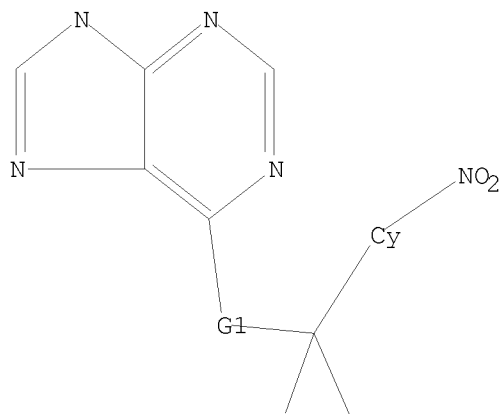
FILE 'CAPLUS' ENTERED AT 09:54:27 ON 15 APR 2008

L8               22 S L6  
L9               8 S L8 AND PY<=2003

=> d l1

L1 HAS NO ANSWERS

L1               STR



G1 O,S,N

Structure attributes must be viewed using STN Express query preparation.

=> logoff hold

COST IN U.S. DOLLARS

SINCE FILE  
ENTRY

TOTAL  
SESSION

FULL ESTIMATED COST 12.28 267.51

SESSION WILL BE HELD FOR 120 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 09:54:59 ON 15 APR 2008

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssptajsl1623

PASSWORD:

\* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \*  
SESSION RESUMED IN FILE 'CAPLUS' AT 10:02:30 ON 15 APR 2008  
FILE 'CAPLUS' ENTERED AT 10:02:30 ON 15 APR 2008  
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	12.28	267.51

=> d his

(FILE 'HOME' ENTERED AT 08:28:58 ON 15 APR 2008)

FILE 'REGISTRY' ENTERED AT 08:29:24 ON 15 APR 2008

L1 STRUCTURE UPLOADED  
L2 0 S L1 SSS SAM  
L3 3 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 08:30:22 ON 15 APR 2008

L4 2 S L3

FILE 'MARPAT' ENTERED AT 09:52:04 ON 15 APR 2008

L5 0 S L3 SSS SAM  
L6 22 S L3 SSS FULL  
L7 0 S L6 AND PY<=2003

FILE 'CAPLUS' ENTERED AT 09:54:27 ON 15 APR 2008

L8 22 S L6  
L9 8 S L8 AND PY<=2003

=> d l9 ibib abs hitstr

L9 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:814853 CAPLUS

DOCUMENT NUMBER: 137:325431

TITLE: Preparation of aminopyrimidines and -pyridines as  
glycogen synthase kinase 3 inhibitors

INVENTOR(S): Nuss, John M.; Harrison, Stephen D.; Ring, David B.;  
Boyce, Rustum S.; Johnson, Kirk; Pfister, Keith B.;  
Ramurthy, Savithri; Seely, Lynn; Wagman, Allan S.;  
Desai, Manjo; Levine, Barry H.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 134 pp., Cont.-in-part of U.S.  
6,417,185.

CODEN: USXXCO

Patent  
English

3

PRIORITY APPLN. INFO.:

GI

AB Title compds. I [wherein W = (un)substituted C or N; X and Y = independently N, O, or (un)substituted C; A = (un)substituted (hetero)aryl; R1, R1a, R2, R2a, R3, R3a, R4, and R4a = independently H, OH, alkoxy, acyl, (hetero)aryl, or (un)substituted (cyclo)alkyl, amino(alkyl), etc. ; R5 and R7 = independently H, halo, alkoxy, guanidiny, (bi)aryl, hetero(bi)aryl, heterocycloalkyl, arylsulfonamido, or (un)substituted (cyclo)alkyl, amino(alkoxy), or amidino; R6 = H, halo, carboxyl, NO<sub>2</sub>, (cyclo)amido, (cyclo)amidino, (cyclo)imido, CN, alkoxy, acyl(oxy), guanidiny, (hetero)aryl, heterocyclo(alkyl), arylsulfonyl, arylsulfonamido, or (un)substituted alkyl, amino, etc.] were prepared as glycogen synthase kinase 3 (GSK3) inhibitors. For example, 2-chloro-5-nitropyridine was aminated by H<sub>2</sub>N(CH<sub>2</sub>)<sub>3</sub>NH<sub>2</sub> and the product N-acylated by benzotriazolecarboxamidinium tosylate to give the alkylguanidine. The latter was cyclocondensed with resin-bound 4-(MeCO)C<sub>6</sub>H<sub>4</sub>CONHCH<sub>2</sub>2C<sub>6</sub>H<sub>4</sub>Br-3 and Cs<sub>2</sub>CO<sub>3</sub> to afford, after resin cleavage, the pyrimidinamine II. The most preferred compds. of the invention exhibited inhibitory activity against human GSK3 $\beta$  in a cell free



assay with IC50 values of < 1  $\mu$ M. Thus, I and compns. containing I may be employed alone or in combination with other pharmacol. active agents in the treatment of disorders mediated by GSK3 activity, such as diabetes, Alzheimer's disease and other neurodegenerative disorders, obesity, atherosclerotic cardiovascular disease, essential hypertension, polycystic ovary syndrome, syndrome X, ischemia, traumatic brain injury, bipolar disorder, immunodeficiency, or cancer (no data).

REFERENCE COUNT: 306 THERE ARE 306 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

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L9 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:185092 CAPLUS

DOCUMENT NUMBER: 136:247598

TITLE: Preparation of aminopyrimidines and -pyridines as glycogen synthase kinase 3 inhibitors

INVENTOR(S): Nuss, John M.; Harrison, Stephen D.; Ring, David B.; Boyce, Rustum S.; Johnson, Kirk; Pfister, Keith B.; Ramurthy, Savithri; Seely, Lynn; Wagman, Allan S.; Desai, Manoj; Levine, Barry H.

PATENT ASSIGNEE(S): Chiron Corporation, USA

SOURCE: PCT Int. Appl., 268 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

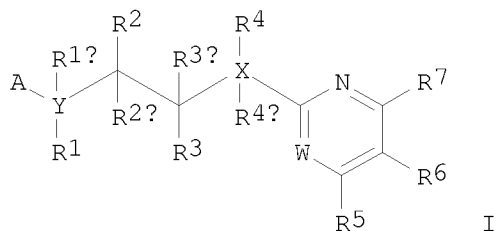
FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

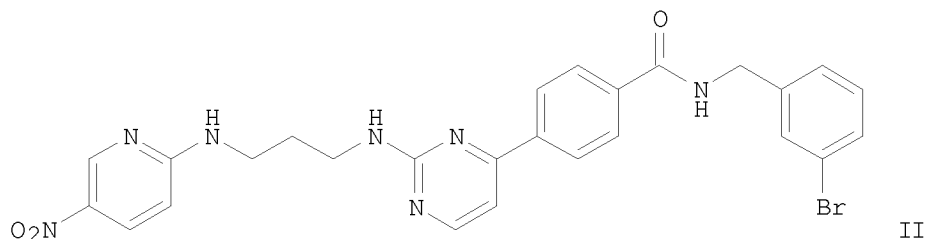
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002020495	A2	20020314	WO 2001-US42081	20010906 <--
WO 2002020495	A3	20020620		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2001095026	A	20020322	AU 2001-95026	20010906 <--
EP 1317433	A2	20030611	EP 2001-975734	20010906 <--
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
JP 2004514656	T	20040520	JP 2002-525117	20010906
CN 1592743	A	20050309	CN 2001-818425	20010906
IN 2003KN00277	A	20050311	IN 2003-KN277	20030305
KR 816769	B1	20080326	KR 2003-703327	20030306
KR 2008013026	A	20080212	KR 2008-701887	20080124
PRIORITY APPLN. INFO.:			US 2000-230480P	P 20000906
			WO 2001-US42081	W 20010906
			KR 2003-703327	A3 20030306

OTHER SOURCE(S): MARPAT 136:247598

GI



I



II

AB Title compds. I [wherein W = (un)substituted C or N; X and Y = independently N, O, or (un)substituted C; A = (un)substituted (hetero)aryl; R1, R1a, R2, R2a, R3, R3a, R4, and R4a = independently H, OH, alkoxy, acyl, (hetero)aryl, or (un)substituted (cyclo)alkyl, amino(alkyl), etc. ; R5 and R7 = independently H, halo, alkoxy, guanidiny, (bi)aryl, hetero(bi)aryl, heterocycloalkyl, arylsulfonamido, or (un)substituted (cyclo)alkyl, amino(alkoxy), or amidino; R6 = H, halo, carboxyl, NO<sub>2</sub>, (cyclo)amido, (cyclo)amidino, (cyclo)imido, CN, alkoxy, acyl(oxy), guanidiny, (hetero)aryl, heterocyclo(alkyl), arylsulfonyl, arylsulfonamido, or (un)substituted alkyl, amino, etc.] were prepared as glycogen synthase kinase 3 (GSK3) inhibitors. For example, 2-chloro-5-nitropyridine was aminated by H<sub>2</sub>N(CH<sub>2</sub>)<sub>3</sub>NH<sub>2</sub> and the product N-acylated by benzotriazolecarboxamidinium tosylate to give the alkylguanidine. The latter was cyclocondensed with resin-bound 4-(MeCO)C<sub>6</sub>H<sub>4</sub>CONHCH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Br-3 and Cs<sub>2</sub>CO<sub>3</sub> to afford, after resin cleavage, the pyrimidinamine II. The most preferred compds. of the invention exhibited inhibitory activity against human GSK3β in a cell free assay with IC<sub>50</sub> values of < 1 μM. Thus, I and compns. containing I may be employed alone or in combination with other pharmacol. active agents in the treatment of disorders mediated by GSK3 activity, such as diabetes, Alzheimer's disease and other neurodegenerative disorders, obesity, atherosclerotic cardiovascular disease, essential hypertension, polycystic ovary syndrome, syndrome X, ischemia, traumatic brain injury, bipolar disorder, immunodeficiency, or cancer (no data).

L9 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:763522 CAPLUS

DOCUMENT NUMBER: 135:283233

TITLE: Pharmaceutical use of adenosine agonists for inducing bone marrow cell proliferation

INVENTOR(S): Fishman, Pnina; Cohn, Ilan

PATENT ASSIGNEE(S): Can-Fite Biopharma Ltd., Israel

SOURCE: U.S. Pat. Appl. Publ., 10 pp., Cont.-in-part of U.S. Ser. No. 700,744.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 20010031742	A1	20011018	US 2001-782259	20010214 <--
US 6790839	B2	20040914		
WO 2000040251	A1	20000713	WO 2000-IL14	20000107 <--
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 6638914	B1	20031028	US 2001-700744	20010109 <--
US 20020037871	A1	20020328	US 2001-871963	20010604 <--
PRIORITY APPLN. INFO.:			IL 1999-127947	A 19990107
			WO 2000-IL14	P 20000107
			US 2001-700744	A2 20010109
			US 2001-782259	A2 20010214

OTHER SOURCE(S): MARPAT 135:283233

AB A method is provided for inducing proliferation of bone marrow cells in a subject, comprising administering an effective amount of an adenosine A1 receptor agonist. Also provided is a method for preventing reduction in level of leukocytes in a subject as a result of a treatment comprising administering to the individual an effective amount of an adenosine A1 receptor agonist. In addition, the invention provides a method of treatment of an individual comprising administering to the subject a therapeutic drug in combination with an adenosine A1 receptor agonist.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:734085 CAPLUS  
DOCUMENT NUMBER: 126:19178  
TITLE: Nucleotide inotropic agents  
INVENTOR(S): Liang, Bruce T.  
PATENT ASSIGNEE(S): University of Pennsylvania, USA  
SOURCE: PCT Int. Appl., 56 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9629345	A1	19960926	WO 1996-US3911	19960322 <--
W:	CA, JP, US			
RW:	AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE			
US 5712258	A	19980127	US 1995-409350	19950323 <--
US 6255292	B1	20010703	US 1997-875050	19970923 <--
US 20030186929	A1	20031002	US 2003-396200	20030325 <--
US 7348315	B2	20080325		
PRIORITY APPLN. INFO.:			US 1995-409350	A2 19950323
			WO 1996-US3911	W 19960322

US 1997-875050

A2 19970923

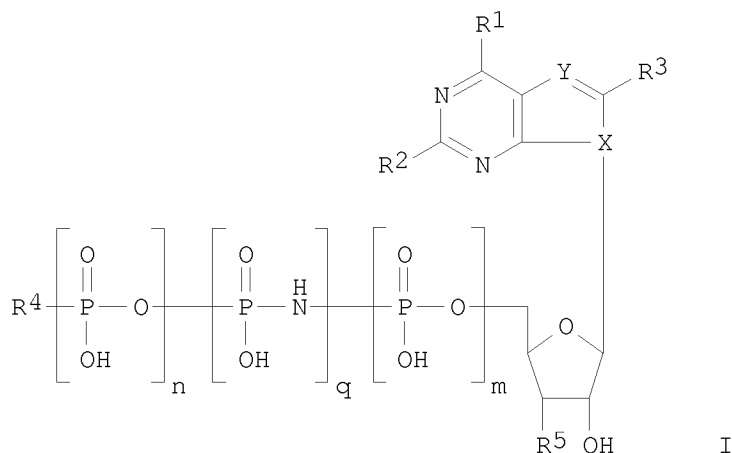
US 2000-641491

B1 20000818

OTHER SOURCE(S):

MARPAT 126:19178

GI



AB Nucleotides I [R1, R2 = halo, -R6(R7)pR8; R3 = H, halo, -R6(R7)pR8; R4 = OH, SH, NH2; R5 = OH, acetamido; R6 = NH, S; R7 = C1-C10 alkylene; R8 = H, NH2, CN, cycloalkyl having 3 to about 10 carbon atoms, or aryl having 3 to about 20 carbon atoms; X, Y = N, CH; n, q, p = 0, 1; m = 1, 2] or their pharmaceutically acceptable salts modulate cardiac muscle contractility and possess vasodilator activity. Receptors that bind the compds. are also provided.

L9 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:315533 CAPLUS

DOCUMENT NUMBER: 122:106398

TITLE: Preparation of deoxythionucleosides as virucides

INVENTOR(S): Koszalka, George Walter; Van Draanen, Nanine Agneta; Freeman, George Andrew; Short, Steven Andersen

PATENT ASSIGNEE(S): Wellcome Foundation Ltd., UK

SOURCE: PCT Int. Appl., 56 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

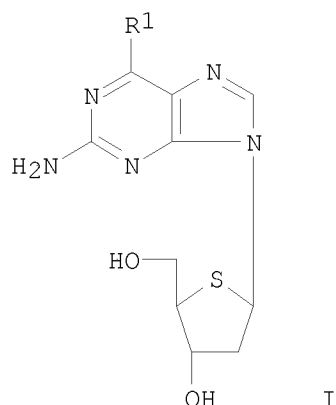
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9401443	A1	19940120	WO 1993-GB1388	19930701 <--
W: AU, BB, BG, BR, CA, CZ, FI, HU, JP, KP, KR, KZ, LK, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9345085	A	19940131	AU 1993-45085	19930701 <--
CN 1087089	A	19940525	CN 1993-109525	19930701 <--
ZA 9304742	A	19950103	ZA 1993-4742	19930701 <--
EP 648218	A1	19950419	EP 1993-914865	19930701 <--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE  
 JP 07508531 T 19950921 JP 1993-503083 19930701 <--  
 PRIORITY APPLN. INFO.: GB 1992-14171 A 19920702  
 GB 1992-23180 A 19921105  
 WO 1993-GB1388 A 19930701  
 OTHER SOURCE(S): CASREACT 122:106398; MARPAT 122:106398  
 GI



AB Title compds. [I; R1 = halo, NR2R3, SOnR4, SOmOR4a, OR5, alkyl, alkenyl, alkynyl; R2, R3 = H, alkyl, cycloalkyl, alkenyl, (substituted) Ph, phenylalkyl; R2R3N = 3-7 membered heterocyclyl; m, n = 0-4; R4, R4a, R5 = alkyl, cycloalkyl, cycloalkylalkyl, alkoxy, (substituted) Ph, phenylalkyl], were prepared as virucides (no data). Thus, 2-amino-6-methoxypurine was kept with  $\alpha, \beta$ -2'-deoxy-4'-thiouridine and trans-N-deoxyribosylase in pH 6.0 citrate buffer at 50° to give I (R1 = OMe). Generic I formulations are given. Use of I against infection by herpes virus, retrovirus, hepatitis virus, coxsackie virus, and hepatitis C virus is claimed.

L9 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:247683 CAPLUS

DOCUMENT NUMBER: 114:247683

TITLE: Preparation of N-heteroaryl purin-6-amines as analgesics and anticonvulsants

INVENTOR(S): Effland, Richard Charles; Klein, Joseph Thomas; Davis, Larry; Olson, Gordon Edward

PATENT ASSIGNEE(S): Hoechst-Roussel Pharmaceuticals, Inc., USA

SOURCE: Eur. Pat. Appl., 25 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

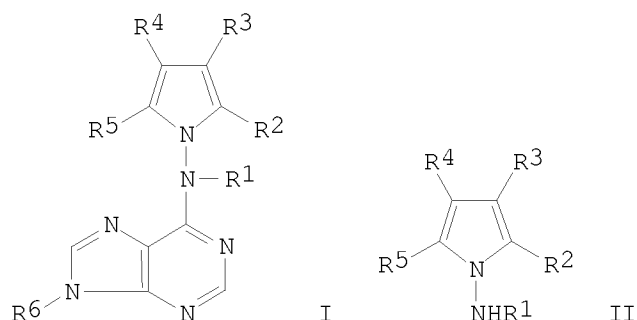
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 402752	A1	19901219	EP 1990-110676	19900606 <--
EP 402752	B1	19950913		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 5017578	A	19910521	US 1989-363837	19890609 <--

ES 2078267	T3	19951216	ES 1990-110676	19900606 <--
IL 94665	A	19940624	IL 1990-94665	19900607 <--
CA 2018563	A1	19901209	CA 1990-2018563	19900608 <--
CA 2018563	C	20000919		
NO 9002555	A	19901210	NO 1990-2555	19900608 <--
AU 9056919	A	19901213	AU 1990-56919	19900608 <--
AU 636351	B2	19930429		
CN 1047866	A	19901219	CN 1990-104194	19900608 <--
CN 1029968	B	19951011		
HU 54156	A2	19910128	HU 1990-3768	19900608 <--
HU 207320	B	19930329		
JP 03024080	A	19910201	JP 1990-148884	19900608 <--
JP 06102663	B	19941214		
ZA 9004443	A	19910327	ZA 1990-4443	19900608 <--
KR 199524	B1	19990615	KR 1990-8444	19900609 <--
US 5155098	A	19921013	US 1991-696472	19910506 <--
KR 210179	B1	19990715	KR 1998-49161	19981117 <--
PRIORITY APPLN. INFO.:			US 1989-363837	A 19890609
			KR 1990-8444	A 19900609
OTHER SOURCE(S):		CASREACT 114:247683; MARPAT 114:247683		
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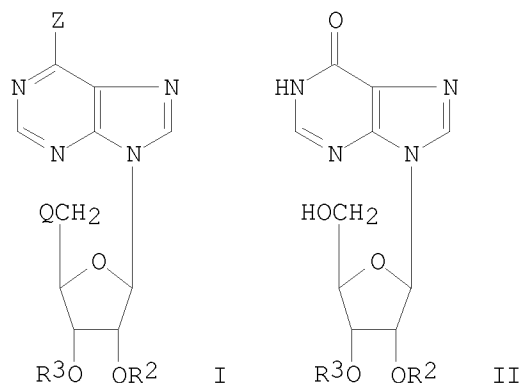


AB The title compds. [I; R1 = H, alkyl, aralkyl; R2-R5 = H, alkyl, or R2R3 = arylene; R4R5 = arylene; R6 = H, alkyl, aryl, aralkyl, (substituted) 1H-pyrrol-1-yl, (substituted) ribofuranosyl] and their pharmaceutically acceptable salts were prepared by, e.g., reaction of QR6 [Q = 6-halo-9-purinyl] with pyrroleamine II. 6-Chloropurine was heated with II (R1 = R2 = R4 = R5 = H, R3 = Me) (preparation given) in Me2CHOH containing ether-HCl at 80° for 4 h to give 28% I [R1 = R2 = R4 = R5 = R6 = H, R3 = Me), which at 20.0 mg/kg s.c. inhibited 37% 2-phenyl-1,4-benzoquinone-induced writhing in mice.

L9 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1991:143930 CAPLUS  
 DOCUMENT NUMBER: 114:143930  
 TITLE: Preparation of 5'-N, 6-disubstituted adenosines from inosines  
 INVENTOR(S): Bridges, Alexander J.  
 PATENT ASSIGNEE(S): Warner-Lambert Co., USA  
 SOURCE: U.S., 7 pp. Cont. of U.S. Ser. No. 34,125, abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4962194	A	19901009	US 1988-260202	19881019 <--
PRIORITY APPLN. INFO.:			US 1987-34125	B1 19870402
OTHER SOURCE(S):		CASREACT 114:143930; MARPAT 114:143930		
GI				



AB The title compds. [I; R<sub>2</sub>, R<sub>3</sub> = H, alkyl, alkanoyl, Bz; or R<sub>2</sub>R<sub>3</sub> = alkylidene; Z = RS(O)q, (un)substituted NH<sub>2</sub>; R = alkyl, (hetero)aryl, aralkyl; q = 0, 2; Q = H, halo, cyano, N<sub>3</sub>, NH<sub>2</sub>, alkoxy, acyloxy, thioalkyl, H<sub>2</sub>NNH, HONH, phosphino, dialkyl or diarylcuprato] are prepared by (1) bromination of inosine derivs. (II; R<sub>2</sub>, R<sub>3</sub> = as defined above, excluding R<sub>2</sub> = R<sub>3</sub> = H) with Ar<sub>3</sub>PBr<sub>2</sub> or (ArO)<sub>3</sub>PBr<sub>2</sub> (Ar = aryl) followed by reaction with RSH (R = as defined above) to give I (Z = RS, Q = Br), (2) oxidation of the latter to I [Z = RS(O)q Q = Br], (3) amination of the latter with amines to give I [Z = (un)substituted NH<sub>2</sub>, Q = Br], and (4) treatment of the latter with a nucleophile. Some I are useful as neuroleptics, analgesics, cardiotonics, antihypertensives, antilipolytics, antihyperlipemics, antiinflammatory agents, antithrombotic or antiembolic agents (no data). Thus, bromination of 2',3'-isopropylideneinosine with Br/Ph<sub>3</sub>P in pyridine followed by reaction with PhSH gave I (Z = PhS, Q = Br, R<sub>1</sub>R<sub>3</sub> = CMe<sub>2</sub>) which was oxidized with m-ClC<sub>6</sub>H<sub>4</sub>C(O)OOH in CHCl<sub>3</sub> in the presence of NaHCO<sub>3</sub> to I (Z = PhSO<sub>2</sub>; R, R<sub>2</sub>, R<sub>3</sub> = as defined above). Amination of the latter with cyclopentylamine in the presence of Et<sub>3</sub>N in CHCl<sub>3</sub> and thiolation of the product I (Z = cyclopentylamino; Q, R<sub>2</sub>, R<sub>3</sub> = as defined above) with NaSMe in Me<sub>2</sub>SO followed by hydrolysis gave I (Z = cyclopentylamino, Q = MeS, R<sub>2</sub> = R<sub>3</sub> = H).

L9 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:423943 CAPLUS

DOCUMENT NUMBER: 113:23943

TITLE: 6-Mercaptopurine derivatives, their preparation and their use against retrovirus infections

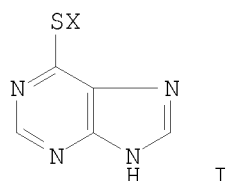
INVENTOR(S): Klosa, Josef; Kroeger, Hans Prof; Meichsner, Christoph; Winkler, Irvin; Helsberg, Matthias; Schrinner, Elmar

PATENT ASSIGNEE(S): Hoechst A.-G., Germany

SOURCE: Eur. Pat. Appl., 15 pp.

CODEN: EPXXDW  
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PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 350742	A1	19900117	EP 1989-112061	19890701 <--
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
DE 3823345	A1	19900125	DE 1988-3823345	19880709 <--
DK 8903383	A	19900110	DK 1989-3383	19890707 <--
AU 8937933	A	19900111	AU 1989-37933	19890707 <--
JP 02067283	A	19900307	JP 1989-174317	19890707 <--
ZA 8905176	A	19900328	ZA 1989-5176	19890707 <--
PRIORITY APPLN. INFO.:			DE 1988-3823345	A 19880709
OTHER SOURCE(S):	CASREACT 113:23943; MARPAT 113:23943			
GI				



AB The title compds. [I; X = C1-6 (unsatd.) (substituted) alkyl, C4-6 cycloalkyl, O- or NH-containing heterocycyl], were prepared Thus, 6-mercaptapurine and then H2C:CHCH2Br were added to KOH in H2O/EtOH to give I (X = CH2CH:CH2) (II). II at 1.0 mg/mL in drinking water reduced the increase in spleen weight of mice infected with Friend leukemia virus from 7.8 (untreated controls) to 1.51%.

=> logoff hold  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
36.04	291.27

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-6.40	-6.40

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